



DEPARTMENT OF TRANSPORTATION

[4910-22-P]

Federal Highway Administration

23 CFR Part 627

[FHWA Docket No. FHWA–2011–0046]

RIN 2125-AF40

Value Engineering

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Final rule.

SUMMARY: This rule updates regulations to enhance the integration of value engineering (VE) analysis in the planning and development of highway improvement projects. In issuing the final rule, FHWA revises the VE regulations to make them consistent with prior changes in legislation and regulations. This rulemaking does not otherwise impose any new burdens on States, revise the threshold of projects for which a VE analysis is required, or change the reporting structure now in place.

DATES: This final rule is effective [insert 30 days after date of publication in the Federal Register].

FOR FURTHER INFORMATION CONTACT: For technical information: Mr. Jon Obenberger, Preconstruction Team Leader, FHWA Office of Program Administration (HIPA), (202) 366-2221, or via e-mail at jon.obenberger@dot.gov. For legal questions, please contact Mr. Michael Harkins, FHWA Office of the Chief Counsel, (202) 366–4928, or via e-mail at michael.harkins@dot.gov. Office hours for the FHWA are from 8:00 a.m. to 4:30 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access and Filing

This document, the notice of proposed rulemaking (NPRM), and all comments received may be viewed online through the Federal eRulemaking portal at:

<http://www.regulations.gov>. The Web site is available 24 hours each day, 365 days each year. Please follow the instructions. An electronic copy of this document may also be downloaded by accessing the Office of the Federal Register's home page at <http://www.archives.gov> or the Government Printing Office's Web page at <http://www.gpo.gov/fdsys/>.

Background

This rulemaking modifies existing regulations to make them consistent with several changes in applicable laws and regulations and to ensure compatibility with 23 U.S.C. 106 and the Office of Management and Budget (OMB) Circular A-131 on Value Engineering. These revisions also will address certain findings contained in a 2007 Office of Inspector General (OIG) report on value engineering in the Federal-aid highway program (FAHP) (<http://www.oig.dot.gov/sites/dot/files/pdffdocs/mh2007040.pdf>) in which the OIG recommended that the FHWA make certain changes to the VE policy.

The regulation is also being revised to enhance the consistency of VE analyses that are conducted and to improve FHWA's stewardship and oversight of these regulations. Additionally, these revisions will advance the integration of VE analysis into the planning and development of Federal-aid projects. Furthermore, these revisions will facilitate enhancements to the VE analyses agencies conduct and will foster the use of

innovative technologies and methods while eliminating unnecessary and costly design elements, thereby improving the projects' performance, value, and quality. The proposed revisions are discussed in the section analysis below.

The VE analyses on Federal-aid highway projects were first established by Congress in the Federal-Aid Highway Act of 1970. The current requirement to conduct a VE analysis for certain Federal-aid highway projects is codified at 23 U.S.C. 106(e). The OMB Circular A-131 on Value Engineering, which was issued in May 1993 (http://www.whitehouse.gov/omb/circulars_a131), requires all Federal agencies to establish and maintain a VE program to improve the quality of their programs and acquisition functions. Under the OMB Circular, Federal agencies are required to develop and maintain policies and procedures to ensure a VE analysis is conducted on appropriate projects and report annually on the results and accomplishments of the analyses conducted and the program's accomplishments. The FHWA annually collects and reports on VE accomplishments achieved within the Federal-aid and Federal Lands Highway Programs. For VE studies conducted during the planning and development phases of projects, the FHWA tracks the number of studies conducted, the number of proposed and implemented recommendations, the value of the implemented recommendations, information regarding the State transportation agency's (STA) VE program (e.g., policies, procedures, training conducted), and FHWA's stewardship and oversight of the VE program. Conducting VE analyses continues to be an effective tool in improving the quality and cost effectiveness of the FAHP projects. Additional

information on STA, local authority, and FHWA VE programs and practices is available at: <http://www.fhwa.dot.gov/ve>.

Summary Discussion of Comments Received in Response to the NPRM

On June 22, 2011, the FHWA published a Notice of Proposed Rulemaking (NPRM) in the Federal Register at 76 FR 36410 soliciting public comments on its proposal to update the existing regulations. The following presents an overview of the comments received in response to the NPRM. Comments were submitted by STAs, industry organizations, and individuals. The docket contained comments from nine parties, including seven STAs, the American Association of State Highway and Transportation Officials (AASHTO), and one individual.

Overall, the commenters supported the proposed rule, namely to enhance the integration of VE analysis in the planning and development of highway improvement projects. The FHWA appreciates the feedback the commenters provided and has carefully reviewed and analyzed all the comments that were submitted.

The AASHTO and STAs support conducting a VE analysis to improve the quality, efficiency, and effectiveness of developing and implementing highway improvement projects. While there was support for revising the VE regulations to ensure consistency with prior changes in legislation and regulations, AASHTO and several STAs commented on issues they believe FHWA needs to consider related to the type of projects subject to a VE analysis, and when the VE analysis is required to be conducted on applicable projects. The AASHTO and STAs also commented on the need to clarify

definitions, when and what type of projects require a VE analysis, how life-cycle costs should be considered and integrated in a VE analysis, the expectations of STAs to facilitate VE training, and STA VE Program requirements.

Comments Directed at Specific Sections of the Proposed Revisions to 23 CFR Part 627

Section 627.1- Purpose and Applicability

The NPRM stated that STAs and local authorities shall establish the policies, procedures, functions, and capacity to monitor, assess, and report on the performance of the VE program. The AASHTO commented that local authorities are obligated to meet all Federal requirements and that reference to local authorities is redundant. Local public agencies (as specified in 23 CFR 635.105) already are required to meet all Federal requirements, which includes the requirement to operate under approved VE policies and procedures, when Federal-aid highway program funding is utilized on projects. The FHWA agrees with these comments. However, there are instances within this regulation where additional emphasis is provided to identify specific VE requirements for which STAs must ensure that local public agencies meet when administering projects utilizing Federal-aid highway program funding. Most references to local public agencies have been removed from 23 CFR part 627. The term local public agency was used throughout 23 CFR part 627 for consistency with 23 CFR 635.105.

Section 627.3 – Definitions

The AASHTO and Wyoming DOT suggested adding a definition for a bridge project. The FHWA agreed with this comment, and the definition of a bridge project was added to section 627.3.

The AASHTO and several STAs provided comments regarding how final design is referenced with regard to the need to conduct a VE analysis (as specified in section 627.5). The FHWA agreed with these comments, and a definition of final design was added to section 627.3 by referencing its current definition in 23 CFR 636.103.

The AASHTO and several STAs commented on the need to consistently use one term when referencing a VE study or analysis. Currently, several terms are used interchangeably in practice to describe the VE process and analysis that is conducted. The FHWA agreed that one term should be used in this regulation. Part 627 has been changed to use the term “VE analysis” for consistency with the provisions in 23 U.S.C. 106(e).

The AASHTO and several STAs expressed concern with the lowest overall life-cycle cost (LCCA) being the primary factor to consider when evaluating and selecting VE recommendations. Under 23 U.S.C. 106(e) and (f), LCCA is required to be conducted during a VE analysis. The FHWA agreed with this comment and has modified the definition of VE analysis in section 627.3(e), by eliminating the use of “lowest” when used with LCCA, and has clarified that LCCA should be a consideration along with other factors, such as quality, environment, safety, and operational efficiency, in determining

whether a VE recommendation is viable. The FHWA has made similar changes in other sections of this regulation where LCCA is referenced.

The Washington State DOT recommended FHWA require STAs to follow the guidance developed by SAVE International for a VE Job Plan, which would better align with the State's practices. The SAVE International guidance fits, in principle, with the particular requirements applicable to the FAHP, but not in its entirety. Thus, FHWA agreed and changed the definition of a VE Job Plan to outline the intent without replicating the SAVE International guidance in Section 627.3(f).

The AASHTO and four STAs commented that the proposed step in the VE Job Plan to evaluate and track the implemented VE recommendations would be a burden. The intent of FHWA was to track VE recommendations to ensure they are either approved or rejected and incorporated into the design of the project(s). The intent was not to evaluate the implementation of these recommendations in the construction phase. The FHWA recognizes that tracking VE recommendations into the construction phase would be a burden for STAs and has clarified the definition of the VE Job Plan to require the implementation of approved recommendations during the design phase.

The AASHTO and several STAs stated that as proposed, the VE Job Plan was too burdensome and that all the steps should not be required for every VE analysis. Specifically, smaller projects should have the ability to eliminate some of the steps in the VE Job Plan. The VE Job Plan identifies the phases to be followed in conducting a VE analysis. The VE Job Plan does not specify the analysis that is to be performed, level of

effort expended, or how the VE analysis should be conducted. Thus, the VE Job Plan and the analysis that is actually conducted are scalable to meet the needs of each project. The changes described above that FHWA has made to the definition of a VE Job Plan identified only the phases to be followed in conducting a VE analysis. The changes do not specify the level of effort and analysis to be conducted, which should be determined by the STAs based on the specific conditions of each project. Section 627.3(f) was modified to clarify the intent and purpose of the VE Job Plan.

The Montana DOT stated that it would be beneficial to define what is included in the determination of total project costs. The FHWA agreed with this comment and added a definition for total project costs, which specifies that it includes all the costs associated with the environmental, design, right-of-way, utilities, and construction phases of a project.

Section 627.5 – Applicable Projects

The AASHTO and several STAs stated that the requirements in sections 627.5(b)(4) were too restrictive because projects with completed designs should not require a VE analysis if their costs exceed the threshold due to construction cost escalation. Also, several STAs stated that after the final design of a project has been completed, a scope or design change should be the trigger to require a VE analysis, and not a 3 year delay. The FHWA agreed with these comments, and revisions were made to section 627.5 to clarify when a VE analysis is required.

The requirement to conduct VE analyses on projects that exceed the thresholds for applicable projects must be satisfied (as specified in 23 U.S.C. 106(e)), and FHWA does not have the authority to change these thresholds. A VE analysis is not required for projects with a total project cost that is under the thresholds established for applicable projects at the completion of final design if there is no scope or design change prior to the letting and the construction costs have escalated to where the project is over these thresholds. However, a VE analysis is required for a project that is under the thresholds established for applicable projects at the completion of final design, but a change made to the project's scope or design prior to the letting causes the total project cost to exceed these thresholds. By definition, if a scope or design change is made to a final set of plans, the project has gone back to the design phase where a VE analysis is required if these changes result in the project exceeding the thresholds established for applicable projects.

The AASHTO and the Kansas and Wyoming STAs recommended that FHWA reinsert the current provision (as specified in 23 CFR 627.5(d)) which states that VE analysis is an activity that is eligible for reimbursement from the Federal-aid highway program. This provision was removed since Federal eligibility for engineering services is defined in 23 CFR 1.11. Value engineering analysis is an engineering service and is therefore an expense that is eligible for reimbursement from the Federal-aid highway program funding. Accordingly, specifically identifying this cost as eligible in part 627 is redundant.

The AASHTO and several STAs commented that the proposed section 627.5 was confusing because it addressed two issues: FHWA-directed additional VE analysis, and the need for a STA's VE Policy to identify when it may be appropriate to conduct additional VE analyses. Some STAs stated that they should be solely responsible for identifying when additional studies are required while others felt that it should be a determination made in collaboration between the STA and FHWA. These two issues have been separated for clarification. Section 627.5(b)(5) specifies that FHWA may direct an additional VE analysis when appropriate, and section 627.5(d) was revised to address the single issue of the STA VE Policy identifying, on a programmatic basis, when any additional VE analysis should be considered or conducted in the planning and development of transportation projects. Additionally, this section was modified to clarify that when a VE analysis is required, it must be conducted prior to completing the final design of the project and prior to the release of the final request for proposals or other applicable VE solicitation documents for design-build projects or other alternative project delivery methods.

The AASHTO and several STAs stated that the thresholds for applicable projects should be increased since it has been a number of years since the thresholds were established. The FHWA does not have the authority to increase the thresholds, as they are specified in the enabling legislation and codified in Federal law at 23 U.S.C. 106(e).

Section 627.7 – VE Programs

The AASHTO and several STAs stated that the requirement to conduct the VE analysis prior to initiating final design will limit the ability of STAs to effectively manage their VE program. The FHWA agreed with these comments. This section was modified to clarify that when a VE analysis is required, it must be conducted prior to completing the final design of a project. For design-build projects, the VE analysis must be completed prior to the release of the final request for proposals or other applicable solicitation documents for alternative project delivery methods.

The AASHTO and several STAs stated that the term “capacity building initiative” needed more clarification. The FHWA agreed with these comments. This section was modified to clarify the need for STAs’ VE programs to facilitate training in place of the originally proposed capacity building initiative.

Section 627.9 – Conducting a VE analysis

The AASHTO and Wyoming STA commented that the statement “a consideration of combining or eliminating inefficient use of the existing facility” in section 627.9(b) was unclear as written. The FHWA agreed with these comments. This sentence has been deleted from this section.

The AASHTO and several STAs stated that a VE analysis is only required on substructures and expressed concern over the inclusion of superstructure in the required VE analysis to be conducted on bridges. The STAs are required to consider the substructure requirements of a bridge (as specified in 23 U.S.C. 106(e)(4)(A)); however, this provision does not limit the VE analysis to only the substructure. The VE

analysis conducted for bridges must “be evaluated on engineering and economic basis, taking into consideration acceptable designs for bridges” (as specified in 23 U.S.C. 106(e)(4)(B)). This consideration would include all bridge elements, substructure, superstructure, approaches, and any other design elements in the contract. Therefore, the FHWA determined that this section did not require any revisions.

The AASHTO and several STAs stated that the reference to conflict of interest in section 627.9(f) was unclear. The FHWA agrees with this comment and this section was modified to include a reference to FHWA’s existing provisions at 23 CFR 1.33.

Rulemaking Analyses and Notices

Executive Order 12866 (Regulatory Planning and Review), Executive Order 13563 (Improving Regulation and Regulatory Review), and DOT Regulatory Policies and Procedures

The FHWA has determined that this rule is not an economically significant rulemaking action within the meaning of Executive Order 12866 and is not a significant rulemaking action within the meaning of the U.S. Department of Transportation regulatory policies and procedures. Additionally, this action complies with the principles of Executive Order 13563 by fostering the use of innovative technologies and methods while eliminating unnecessary and costly design elements. This rule establishes revised requirements for conducting VE analyses and it is anticipated that the economic impact of this rulemaking will be minimal. In addition, these changes will not interfere with any

action taken or planned by another agency and will not materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (RFA) (Pub. L. 96-354, 5 U.S.C. 601-612), the FHWA has evaluated the effects of this rule on small entities. The FHWA has determined that this action does not have a significant economic impact on a substantial number of small entities. The proposed amendment addresses VE studies performed by STAs on certain projects using Federal-aid highway funds. As such, it affects only States, and States are not included in the definition of small entity set forth in 5 U.S.C. 601. Therefore, the RFA does not apply, and the FHWA certifies that this action will not have a significant economic impact on a substantial number of small entities.

Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4, March 22, 1995, 109 Stat. 48). Furthermore, in compliance with the Unfunded Mandates Reform Act of 1995, FHWA evaluated this rule to assess the effects on State, local, and Tribal governments and the private sector. This rule does not result in the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector, of \$140.8 million or more in any one year (2 U.S.C. 1532). Additionally, the definition of "Federal Mandate" in the Unfunded Mandates Reform Act excludes financial assistance of the type in which State,

local, or Tribal governments have authority to adjust their participation in the program in accordance with changes made in the program by the Federal Government. The Federal-aid highway program permits this type of flexibility.

Executive Order 13132 (Federalism Assessment)

This rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132, dated August 4, 1999, and the FHWA has determined that this rule will not have a substantial direct effect or sufficient federalism implications to warrant preparation of a federalism assessment. The FHWA has also determined that this rule does not preempt any State law or regulation or affect the States' ability to discharge traditional State governmental functions.

Executive Order 12372 (Intergovernmental Review)

Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.

Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501 et. seq.), Federal agencies must obtain approval from the OMB for each collection of information they conduct, sponsor, or require through regulations.

The FHWA has determined that this rule contains a requirement for data and information to be collected and maintained in support of compiling the results of the VE

analyses that are conducted annually. The FHWA received no comments to this information collection.

It will take approximately 200 burden hours to compile the results of the VE analyses annually (400 analyses at 30 minutes each). It will take approximately 156 burden hours to compile the results of all of the VE analyses that are conducted annually in each State DOT, the District of Columbia, and Puerto Rico and to submit these results to FHWA (52 analyses at 3 hours each). The estimated total burden to provide the additional information to attain full compliance with the final rule is 356 hours.

National Environmental Policy Act

The FHWA has analyzed this rule for the purpose of the National Environmental Policy Act (42 U.S.C. 4321 et seq.) and has determined it will not have any effect on the quality of the human and natural environment, because this rule merely establishes the requirements that apply to VE analyses whenever an applicable Federal-aid highway project is to be constructed. The promulgation of this regulation has been determined to be a categorical exclusion under 23 CFR 771.117(c)(20).

Executive Order 13175 (Tribal Consultation)

The FHWA has analyzed this action under Executive Order 13175, dated November 6, 2000, and believes that this rule does not have substantial direct effects on one or more Indian Tribes; does not impose substantial direct compliance costs on Indian Tribal governments; and does not preempt Tribal law. This rule establishes the requirements that apply to VE analyses whenever an applicable Federal-aid highway

project is to be constructed and does not impose any direct compliance requirements on Indian Tribal governments, nor does it have any economic or other impacts on the viability of Indian Tribes. Therefore, a Tribal summary impact statement is not required.

Executive Order 13211 (Energy Effects)

The FHWA has analyzed this rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution or Use. We have determined that this rule does not constitute a significant energy action under that order since it will not have a significant adverse effect on the supply, distribution, or use of energy. Therefore, the FHWA certifies that a Statement of Energy Effects under Executive Order 13211 is not required.

Executive Order 12630 (Taking of Private Property)

The FHWA has analyzed this rule under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights. The FHWA has determined that this rule does not effect a taking of private property or otherwise have taking implications under Executive Order 12630.

Executive Order 12988 (Civil Justice Reform)

This action meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity and reduce burden.

Executive Order 13045 (Protection of Children)

The FHWA has analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. The FHWA certifies that this rule does not cause an environmental risk to health or safety that may disproportionately affect children.

Regulation Identification Number

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects in 23 CFR Part 627

Grant programs-transportation, Highways and roads.

Issued on: January 27, 2012

Victor M. Mendez
Administrator

In consideration of the foregoing, the FHWA amends title 23 of the Code of Federal Regulations by revising part 627 to read as follows:

PART 627--VALUE ENGINEERING

Sec.

627.1 Purpose and applicability.

627.3 Definitions.

627.5 Applicable projects.

627.7 VE programs.

627.9 Conducting a VE analysis.

Authority: 23 U.S.C. 106(e), 106(g), 106(h), 112(a) and (b), 302, 315; and 49 CFR part 18.

§ 627.1 Purpose and applicability.

(a) The purpose of this part is to prescribe the programs, policies and procedures for the integration of value engineering (VE) into the planning and development of all applicable Federal-aid highway projects.

(b) Each State transportation agency (STA) shall establish and sustain a VE program.

This program shall establish the policies and procedures identifying when a VE analysis is required. These policies and procedures should also identify when a VE analysis is encouraged on all other projects where there is a high potential to realize the benefits of a VE analysis.

(c) The STAs shall establish the policies, procedures, functions, and capacity to monitor, assess, and report on the performance of the VE program, along with the VE analyses that are conducted and Value Engineering Change Proposals (VECP) that are accepted.

The STAs shall ensure that its subrecipients conduct VE analyses in compliance with this part.

§ 627.3 Definitions.

The following terms used in this part are defined as follows:

Bridge Project. A bridge project shall include any project where the primary purpose is to construct, reconstruct, rehabilitate, resurface, or restore a bridge.

Final Design. Final design has the same meaning as defined in 23 CFR 636.103.

Project. A portion of a highway that a STA or public authority proposes to construct, reconstruct, or improve as described in the preliminary design report or applicable environmental document. A project is defined as the logical termini in the environmental document and may consist of several contracts, or phases of a project or contract, which are implemented over several years.

Total Project Costs. The costs of all phases of a project including environment, design, right-of-way, utilities and construction.

Value Engineering (VE) Analysis. The systematic process of reviewing and assessing a project by a multidisciplinary team not directly involved in the planning and development phases of a specific project that follows the VE Job Plan and is conducted to provide recommendations for:

- (1) Providing the needed functions, considering community and environmental commitments, safety, reliability, efficiency, and overall life-cycle cost (as defined in 23 U.S.C. 106(f)(2));
- (2) Improving the value and quality of the project; and
- (3) Reducing the time to develop and deliver the project.

Value Engineering (VE) Job Plan. A systematic and structured action plan for conducting and documenting the results of the VE analysis. While each VE analysis

shall address each phase in the VE Job Plan, the level of analysis conducted and effort expended for each phase should be scaled to meet the needs of each individual project.

The VE Job Plan shall include and document the following seven phases:

- (1) Information Phase Gather project information including project commitments and constraints.
 - (2) Function Analysis Phase Analyze the project to understand the required functions.
 - (3) Creative Phase Generate ideas on ways to accomplish the required functions which improve the project's performance, enhance its quality, and lower project costs.
 - (4) Evaluation Phase Evaluate and select feasible ideas for development.
 - (5) Development Phase Develop the selected alternatives into fully supported recommendations.
 - (6) Presentation Phase Present the VE recommendation to the project stakeholders.
 - (7) Resolution Phase: Evaluate, resolve, document and implement all approved recommendations.
- (g) *Value Engineering Change Proposal (VECP)*. A construction contract change proposal submitted by the construction contractor based on a VECP provision in the contract. These proposals may improve the project's performance, value and/or quality, lower construction costs, or shorten the delivery time, while considering their impacts on the project's overall life-cycle cost and other applicable factors.

§ 627.5 Applicable projects.

(a) A VE analysis shall be conducted prior to the completion of final design on each applicable project that utilizes Federal-aid highway funding, and all approved recommendations shall be included in the project's plans, specifications and estimates.

(b) Applicable projects shall include the following:

(1) Each project located on the National Highway System (NHS) (as specified in 23 U.S.C. 103) where the estimated total project cost is \$25 million or more that utilizes Federal-aid highway funding;

(2) Each bridge project located on or off of the NHS where the estimated total project cost is \$20 million or more that utilizes Federal-aid highway funding;

(3) Any major project (as defined in 23 U.S.C. 106(h)), on or off of the NHS, that utilizes Federal-aid highway funding in any contract or phase comprising the major project;

(4) Any project for which a VE analysis has not been conducted and a change is made to the project's scope or design between the final design and the letting which results in an increase in the project's total cost exceeding the thresholds identified in paragraphs (b)(1), (2) or (3) of this section; and

(5) Any other Federal-aid project the FHWA determines to be appropriate.

(c) An additional VE analysis is not required if, after conducting the VE analysis required under this part for any project meeting the criteria of paragraph (b) of this section, the project is subsequently split into smaller projects in the design phase or if the project is

programmed to be completed by the letting of multiple construction projects. However, the STA may not avoid the requirement to conduct a VE analysis on an applicable project by splitting the project into smaller projects, or multiple construction projects.

(d) The STA's VE Program's policies and procedures shall identify when any additional VE analysis should be considered or conducted in the planning and development of transportation projects.

(e) For projects utilizing design-build and other alternative project delivery methods for which final design is not complete prior to the release of the final request for proposals or other applicable solicitation documents, the estimated total cost for purposes of the thresholds identified in paragraphs (b)(1) and (2) of this section, shall be based on the best estimate of the cost to construct the project.

§ 627.7 VE programs.

(a) The STA shall establish and sustain a VE program under which VE analyses are conducted for all applicable projects. The STA's VE program shall:

(1) Establish and document VE program policies and procedures that ensure the required VE analysis is conducted on all applicable projects, and encourage conducting VE analyses on other projects that have the potential to benefit from this analysis;

(2) Ensure the VE analysis is conducted and all approved recommendations are implemented and documented in a final VE report prior to the project being authorized to proceed to a construction letting;

- (3) Monitor and assess the VE Program, and disseminate an annual report to the FHWA consisting of a summary of all approved recommendations implemented on applicable projects requiring a VE analysis, the accepted VECPs, and VE program functions and activities;
- (4) Establish and document policies, procedures, and contract provisions that identify when VECP's may be used; identify the analysis, documentation, basis, and process for evaluating and accepting a VECP; and determine how the net savings of each VECP may be shared between the agency and contractor;
- (5) Establish and document policies, procedures, and controls to ensure a VE analysis is conducted and all approved recommendations are implemented for all applicable projects administered by local public agencies; and ensure the results of these analyses are included in the VE program monitoring and reporting; and
- (6) Provide for the review of any project where a delay occurs between when the final plans are completed and the project advances to a letting for construction to determine if a change has occurred to the project's scope or design where a VE analysis would be required to be conducted (as specified in 23 CFR 627.5(b)).
- (b) STAs shall ensure the required VE analysis has been performed on each applicable project including those administered by subrecipients, and shall ensure approved recommendations are implemented into the project's plans, specifications, and estimate.
- (c) STAs shall designate a VE Program Coordinator to promote and advance VE program activities and functions. The VE Coordinator's responsibilities should include

establishing and maintaining the STA's VE policies and procedures; facilitating VE training; ensuring VE analyses are conducted on applicable projects; monitoring, assessing, and reporting on the VE analyses conducted and VE program; participating in periodic VE program and project reviews; submitting the required annual VE report to the FHWA; and supporting the other elements of the VE program.

§ 627.9 Conducting a VE analysis.

(a) A VE analysis should be conducted as early as practicable in the planning or development of a project, preferably before the completion of the project's preliminary design. At a minimum, the VE analysis shall be conducted prior to completing the project's final design.

(b) The VE analysis should be closely coordinated with other project development activities to minimize the impact approved recommendations might have on previous agency, community, or environmental commitments; the project's scope; and the use of innovative technologies, materials, methods, plans or construction provisions.

(c) For projects utilizing design-build and other alternative project delivery methods that will be advertised prior to the completion of final design, the STA or local public agency shall conduct a VE analysis prior to the release of the final Request for Proposals or other applicable solicitation documents.

(d) STAs shall ensure the VE analysis meets the following requirements:

- (1) Uses a multidisciplinary team not directly involved in the planning or design of the project, with at least one individual who has the training and experience with leading a VE analysis;
- (2) Develops and implements the VE Job Plan;
- (3) Produces a formal written report outlining, at a minimum:
 - (i) Project information;
 - (ii) Identification of the VE analysis team;
 - (iii) Background and supporting documentation, such as information obtained from other analyses conducted on the project (e.g., environmental, safety, traffic operations, constructability);
 - (iv) Documentation of the stages of the VE Job Plan which would include documentation of the life-cycle costs that were analyzed;
 - (v) Summarization of the analysis conducted;
 - (vi) Documentation of the proposed recommendations and approvals received at the time the report is finalized; and
 - (vii) The formal written report shall be retained for at least 3 years after the completion of the project (as specified in 49 CFR 18.42).
- (e) For bridge projects, in addition to the requirements in paragraph (d) of this section, the VE analyses shall:
 - (1) Include bridge substructure and superstructure requirements that consider alternative construction materials; and

- (2) Be conducted based on:
- (i) An engineering and economic assessment, taking into consideration acceptable designs for bridges; and
 - (ii) An analysis of life-cycle costs and duration of project construction.
- (f) STAs and local public agencies may employ qualified consultants (as defined in 23 CFR 172) to conduct a VE analysis. The consultant shall possess the training and experience required to lead the VE analysis. A consulting firm or individual shall not be used to conduct or support a VE analysis if they have a conflict of interest (as specified in 23 CFR 1.33).
- (g) VECPs, STAs, and local public agencies are encouraged to use a VECP clause (or other such clauses under a different name) in an applicable project's contract, allowing the construction contractor to propose changes in the project's plans, specifications, or other contract documents. Whenever such clauses are used, the STA and local authority will consider changes that could improve the project's performance, value and quality, shorten the delivery time, or lower construction costs, while considering impacts on the project's overall life-cycle cost and other applicable factors. The basis for a STA or local authority to consider a VECP is the analysis and documentation supporting the proposed benefits that would result from implementing the proposed change in the project's contract or project plans.
- (h) Proposals to accelerate construction after the award of the contract will not be considered a VECP and will not be eligible for Federal-aid highway program funding

participation. Where it is necessary to accelerate construction, STAs and local public agencies are encouraged to use the appropriate incentive or disincentive clauses so that all proposers will take this into account when preparing their bids or price proposals.

[FR Doc. 2012-6244 Filed 03/14/2012 at 8:45 am; Publication Date: 03/15/2012]